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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/964,820	09/26/2001	David G. Leeper	42390P10398	2634

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EXAMINER	
VARTANIAN, HARRY	

ART UNIT	PAPER NUMBER
2634	8

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/964,820	LEEPER, DAVID G.	
	Examiner	Art Unit	
	Harry Vartanian	2634	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 February 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12,14-21 and 23-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12,14-21 and 23-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 September 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Detailed Action

1. Claims 1-12, 14-21, and 23-25 are pending in this application.

Response to Arguments

1. Applicant's arguments filed 2/26/2004 with respect to the rejection of Claim 1 under 35 U.S.C. § 102(b) have been fully considered but they are not persuasive. Regarding the argument for Claim 1, applicant states that Trompower et al does not meet the limitation one master device "polling" another master device for its hopping sequence. However, Trompower et al states two examples meeting the limitation of the claim:

> "Upon registering with a particular base station 154, 156, ***the wireless base station 156 transmits a request to the base station 154, 156*** with which it is registered ***prompting it to send*** the contents of ***its roaming table 296***. ***The base station*** 154, 156 with which the wireless base station 156 has just registered in turn ***transmits the contents of its roaming table 296 to the wireless base station 156 such that the contents of the roaming table 296 in each of the base stations 154, 156 are substantially identical.*** However, as described below in the context of when a base station 154, 156 transmits information for forming a reduced roaming table 320 to a mobile terminal 166, the contents of ***the roaming table as transmitted are updated to reflect the hopping sequence timing information for the various base stations at the time the information is transmitted.*** The wireless base station 156 then broadcasts its own new base station registration packet to all of the other base stations 154, 156 in the system 150. The new base station registration packet has the same format at those sent by the base stations 154 as discussed above in connection with FIG. 12, step 418. The other base stations 154, 156 then use the information in the new base station registration packet to create an entry in their respective roaming tables 296 corresponding to the newly introduced wireless base station 156."**(Column 21, Lines 37-60; please also read Column 21, Lines 7-36 omitted for brevity.)**

> "Referring now to FIG. 12, the procedure according to which each base station 154 may enter the system 150 is shown... After powering up and upon completing any self-initialization routines, ***the processor 176 is programmed to generate and broadcast an "entry" packet to any base stations 154, 156 in the system 150 as represented in step 402.*** Such entry packet is received by each base station 154 directly via the system backbone 152, and ***each wireless base station 156 receives such broadcast packet*** via the base station 154 with which it is associated...The data field 254 includes information identifying the base station 154 as having entered the system 150 ***and requesting that other base stations 154, 156 in the system 150 reply with an entry response packet 280 in the format shown in FIG. 9."*** **(Column 19, Lines 15-38)**

The key point in the above paragraphs is that the wireless basestation(a type of master device) requests or prompting it to send the roaming table of basestation 154 which contains frequency hopping sequences(see fig 12 for table format and content). In the broadest sense, one definition of polling on dictionary.com is:

> 2. *To receive or record the votes of:* polling a jury.

3. To cast (a vote or ballot).

4. To question in a survey; canvass.

7. To register or deposit, as a vote

Therefor the act of requesting or registering can be considered as polling. Furthermore, Trompower states that the motivation for request the frequency hopping table sequence is to "...**search for a new base station** which ***provides even better performance*** in the same manner described below with respect to the mobile terminals 166 and a priority fast scan."**(Column 21, Lines 61-66)**

2. Applicant's arguments filed 2/26/2004 with respect to the rejection of Claim 14 under 35 U.S.C. § 102(b) have been fully considered but they are not persuasive. Regarding the argument for AMENDED Claim 14, applicant is stating a method onto which two master devices verify if the handoff is occurring by checking to see if the first master device is receiving messages from a certain slave device. The applicant argues that Trompower et al does not disclose that the second master polls the first master to see the slave is receiving a signal from the first master. Although the previously quoted paragraph does not clearly specify the claimed limitation, Trompower et al nevertheless does meet the limitation. The roaming tables maintained by the basestation's in trompower et al have a column labeled "roamed to"(fig 10, item 310). Trompower states that:

> "The roamed to indicator 310 contains a flag bit which ***is set to indicate whether a mobile terminal 166 which was registered with the base station in which the roaming table 280 is being maintained has roamed to the base station which corresponds to the entry over the last 24 hours***, for example. ***Thus, if the flag bit is set in the roamed to indicator 310 in any given entry, this indicates that a mobile terminal has roamed thereto in the last 24 hours from the base station in which the roaming table is maintained***. The processor 176, 176' is programmed to maintain this information based on registration packets received from other base stations via the system backbone 152."**(See Column 10, Lines 40-67)**

Therefor the basestation's track when a mobile station moves from one to the other. Moreover, it was established above that basestation's(second masters) do request,

or poll, for updated roaming tables from other basestation's(first masters). It is therefor evident that when updated roaming tables are sent to the original basestation from the other basestation's, information is provided onto whether a mobile unit is associated, or receiving a signal, from another basestation. Trompower et al also discloses the opposite operation. That is the new basestation(first master) voluntary, without polling, telling the old basestation(second master) that it is receiving a signal from mobile station. This is disclosed in:

> "As is discussed above in relation to FIG. 13, ***upon the mobile terminal 166 registering with the new base station 154,156, the new base station 154,156 is programmed to broadcast the registration notice packet to the base station 154,156 with which the mobile terminal 166 was previously registered.*** As a result, the previous base station 154,156 can forward ***any buffered packets and update its roaming table*** 296 in the manner described above with respect to steps 468, 470, and 472."

3. Applicant's arguments filed 2/26/2004 with respect to the rejection of Claim 18 under 35 U.S.C. § 102(b) have been fully considered but they are not persuasive. Addressing the applicants argument, mobile stations do indeed send hopping sequences to basestations. However, the explanation given in paragraphs 1 and 2 also applies to this Claim. More specifically, a hopping sequence is information that is contained in the roaming table of a basestation. In paragraphs 1 and 2, it was established that Trompower et al does in fact disclose polling and exchange of roaming tables between basestation's during handoff or new registration. This would include sending hopping sequences so that transmission is not interrupted between mobile stations and base stations during handoff.

4. Applicant's arguments filed 2/26/2004 with respect to the rejection of Claim 23 under 35 U.S.C. § 102(b) have been fully considered but they are not persuasive. The explanations given in paragraphs 1-3 also apply to AMENDED Claim 23.

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

1. Claims 1-12, 14-21, and 23-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Trompower et al(US Patent 6,088,591). The limitations for Claim 1 were met in the above paragraphs. Regarding Claim 5 Trompower et al discloses a method and system where base stations exchange hopping sequences information using a backbone connection(Abstract).

Regarding Claims 2, 3, 16, 19-20, Trompower et al discloses the use of a wired twisted pair network or wireless means to exchange hopping sequences(Column 8, Line 37-40).

Regarding Claim 4 and AMENDED Claim 14, the rejection for the Claim was met in the above paragraphs.

Regarding Claims 6 and 7, Trompower et al discloses the method of handing over a mobile terminal from one base station to another(Column 9, Lines 47-51) after hopping sequences have been exchanged(Column 21, Lines 37-60; please also read Column 21, Lines 7-36 omitted for brevity).

Regarding Claims 8, 9, and 25 Trompower et al describes the method of handing off a mobile terminal once the signal strength falls below a threshold value(Column 31, Lines 44-48 and Column 29, Lines 5-46).

Regarding Claim 10 and 17, Trompower et al describes the updating of roaming tables of mobile stations, which in turn later update other base stations and terminals after handoff(Column 24 lines 21-43). Therefore "neighboring" base station tables are updated using this method.

Regarding amended Claim 18, the rejection for the Claim was met in the above paragraphs.

Regarding Claims 11 and 21, Trompower et al describes the mobile devices in his system being able to send beacon packets to base stations with updated hopping sequences when moving to a new cell. More specially, "As is explained below in connection with FIGS. 15A-15B, a mobile terminal 166 which newly registers with a base station 154, 156 transmits a mobile terminal update packet to the new base station 154, 156 which includes current hopping sequence timing information and test pattern information for the base station 154,156 with which the mobile terminal 166 was previously registered." (Column 24, Lines 44-54) Since base stations also send there information to each other through the backbone as disclosed above, it can be inferred that the mobile stations, or "slaves", are in fact adjusting their hopping sequences to base stations, or "masters", in other cells.

Regarding Claim 12, Trompower et al describes the switching of hopping sequences of the mobile terminal during handoff(Column 2, Lines 31-37).

Regarding Claim 15 and 24, Trompower et al describes the use of sending beacon packets to exchange hopping sequences(Column 2, Line 58 to Column 3, Line 33).

(Column 10, Lines 9-32). The other limitations of the Claim were met in the above paragraphs.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Please consider newly cited documents in PTO-892 paper #8 in their entirety.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Harry Vartanian whose telephone number is 703.305.8698. The examiner can normally be reached on 9-5:30 Mondays to Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 703.305.4714. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Harry Vartanian
Examiner
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HV

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